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MBA PROFESSIONAL REPORT

**A Behavioral Approach to Meeting
Contingency Contracting Personnel Requirements**

**By: Jacob Chieffo
 March 2009**

**Advisors: Jeffrey R. Cuskey,
 Dr. Cary Simon**

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**A BEHAVIORAL APPROACH TO MEETING
CONTINGENCY CONTRACTING PERSONNEL REQUIREMENTS**

Jacob A. Chieffo
Civilian, United States Army
B.S. Arizona State University, 2001

Submitted in partial fulfillment of the requirements for the degree of

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March 2009**

Author:

Jacob Chieffo

Approved by:

Jeffrey R. Cuskey, Lead Advisor

Dr. Cary Simon, Support Advisor

William R. Gates, Dean
Graduate School of Business and Public Policy

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ABSTRACT

This project describes the incentive processes and programs affecting U.S. Army recruitment outcomes in its attempts to encourage civilian participation in deployments for contingency contracting. Major models of human motivation are analyzed in terms of possibilities for improving the shortage of civilian contingency contracting deployments identified by the Gansler Report (October 2007). Issues of incentives, employee needs, motivation, expectations, and deployment concerns, are explored to determine how to increase the quantity and quality of deployable civilians. These issues are organized in accordance with Maslow's Hierarchy of Needs to facilitate a model-based perspective on the Deployable Contingency Contracting Cadre (DCCC) experience. Resultant recommendations include: conduct of an official survey to enhance understanding of the target pool, improvements to the DCCC program which exert maximum control over the forces which affect participation (e.g., a Direct Support Ribbon for participants, DCCC hiring preference points, etc.), and stratification of the DCCC to provide members with a choice of risk levels and associated pay. The researcher also recommends development of distributed contingency contracting support via a "Virtual Contingency Contracting Cadre," whereby the Army's existing technological investments are leveraged to deliver the work capabilities of numerous personnel without the requirements of a physical presence.

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I. INTRODUCTION

A. PURPOSE

The purpose of this research is to develop recommendations for improving Contingency Contracting recruitment rates by exploring the issue through the lens of several major motivational theories. This project describes the incentive processes and programs presented by the U.S. Army. Models of human motivation are analyzed in terms of possibilities for improving substantial shortfalls and gaps in recruiting civilians for deployment into a contingency contracting war environment. Issues of incentives, employee needs, motivation, and expectations, as well as deployment concerns, are explored to determine how to increase the quantity and quality of civilian contingency contracting personnel. Lastly, conclusions are drawn upon recruitment program elements which appear to lack positive and/or incur negative effects, including recommendations for modifying or implementing new incentive efforts.

B. BACKGROUND

As indicated by the “Report of the Commission on Army Acquisition and Program Management in Expeditionary Operations” (“Gansler Report,” 2007), and the planning documentation for the Army Materiel Command’s (AMC) Deployable Civilian Contracting Cadre (DCCC), the Army is currently experiencing a shortfall of experienced civilian Contracting Officers to support expeditionary contracting operations in theaters pertaining to the Global War on Terrorism. From the end of the Cold War through to about 1996, the number of contract actions and the amount of money involved had been decreasing, and the overall number of DOD contracting personnel had decreased at a similar rate. Based upon the expectation that the contracting workload would continue to shrink, the 1996 DOD Authorization Act was passed with a stated goal of reducing the Acquisition workforce by an additional 25%. This reaction to prior reductions in contracting activity occurred just as the DOD Procurement budget was about to enter an upswing that would continue for the next decade, aggravated by the recent Global War on Terror. The net result of these two forces was to create the present understaffing of

qualified contracting personnel in relation to the acquisition workload. To correct the shortfalls, the Gansler Report recommends an increase of 400 military and 1,000 civilian contracting personnel, with another 583 added to bolster the Defense Contract Management Agency's (DCMA) mission.

This overall shortage of civilian contracting personnel has negatively impacted the availability of civilian contingency contracting personnel. The Army requires "contracting civilians to support deployments due to their experience and skills that cannot be replaced by the military contingency contracting battalion concept. Contracting Officers are inherently governmental and cannot be contracted out... the need for Contingency Contracting Civilians has increased over the last three years and the number of volunteers have remained the same" (DCCC planning documentation). The Army's direct method for responding to the Gansler Report's issues has been through the development of the DCCC. Despite the Army's efforts to enhance Contingency Contracting volunteerism rates from its pool of civilian Contracting professionals, serious quantitative and qualitative shortfalls persist, manifesting in suboptimal contingency contracting performance (Gansler, 2007). With this problem in mind, the following project seeks to explore the DCCC's approach to civilian recruitment in order to identify changes to the DCCC program and recruitment approach which may enhance the attractiveness of civilian contingency contracting volunteerism.

C. RESEARCH QUESTIONS

1. Primary Research Question

To what extent do the Army's Contingency Contracting recruitment and retention efforts appear to be solving known civilian personnel shortfalls, and how can organizational behavior motivation models be used to understand and enhance recruiting results, i.e., increases in quantity and quality of contingency contracting personnel?

2. Secondary Research Questions

What are the demographics of current Army contingency contracting personnel?

How might those demographics play a role in terms of the utility of current and future incentive programs?

What conclusions can be drawn concerning current recruitment incentive practices?

What recommendations can be made which are likely to substantially enhance the rate of Contingency Contracting participation by Army civilians?

D. PROJECT SCOPE

This research will use known motivational models as a lens through which to consider both the DCCC recruitment strategy and the available target pool. Perhaps the most famous model for this investigation is the “Hierarchy of Needs” developed by Abraham Maslow. Major supporting theories will be the “Two-Factor Theory” of Frederick Herzberg, and Victor Vroom’s “Expectancy Theory.” While each of these models will inform the process, it is beyond the purview of this paper to delve deeply into the arguable strengths or weaknesses of any model, i.e., Maslow’s Hierarchy reflects western cultures and still lacks widespread academic acceptance. These models provide various perspectives to analyze the DCCC situation in hopes of revealing opportunities for improvement. A description of these models is contained in Chapter II.

E. BENEFITS OF THIS STUDY

The MBA Professional Report resulting from this Project is expected to illustrate a motivation model based approach to improving the incentivization and motivation practices currently in use to augment current shortfalls in Army contingency contracting environs.

F. RESEARCH METHODOLOGIES

In order to explore the basis for the questions posed above, the research begins with a summary of relevant areas of the Gansler Report and of currently-available information regarding the DCCC to demonstrate the Army’s assessment of contingency contracting shortcomings coupled with the Army’s response thereto. A review of the most recent Federal Acquisition Institute (FAI) demographic data for Federal Contracting professionals (or “1102s”) provides a broad indication of the characteristics of the prospective pool, and serves to contextualize how certain recruitment program benefits

may be perceived by personnel who are in varying stages of their careers' progression. The bulk of this research utilizes the primary sources for the models put forth by Maslow, Herzberg, and Vroom in order to facilitate a model-based perspective upon the Army's current civilian contingency contracting recruiting methods.

G. LIMITATIONS

The research being conducted has several clear limitations in its scope and relevance. The Army's needs, as sought to be fulfilled through the DCCC, and the ability of the latter to meet the former, are the sole subjects discussed herein. The results of the research may apply, in some part, to other segments of the DOD or beyond, but is not explored by this research.

This approach identifies several major human motivational models, which were selected based upon their omnipresence in discussions of human behavior. Those models are not presumed to be the only models which may provide insight to this particular situation, but the research is limited to these three models as a matter of practicality. The extent to which the models fully explain human motivation, and the predictive quality of the models relative to each other (or undiscussed models), are not within the research's scope.

The detailed technical, budgetary, and managerial aspects of the researcher's recommendations are also outside the scope of the study.

H. PROJECT ORGANIZATION

Chapter I provides an introduction to the project by detailing its purpose and background, and the key research questions driving the activities. After the project scope is set forth, the chapter continues by describing the methodologies used to collect data in support of the analysis phase and resultant conclusions. This chapter also discusses the researcher-identified limitations upon the methodology and outcomes of the research.

Chapter II provides a Literature Review covering the Gansler Report, the Phases of Contingency Contracting, the available Army Deployable Civilian Contracting

recruiting information, FAI Demographics, Maslow's Hierarchy of Needs Theory, Herzberg's Hygiene-Motivation Theory, and concludes with Vroom's Expectancy Theory.

Chapter III contains the researcher's Analysis, which describes a method of aggregating the three Motivational Models into a single system. This composite motivational model describes and depicts the prospective volunteer's decision-making process, thereby providing a framework for considering the effects of recruitment program modifications.

Chapter IV, Activities, uses the composite motivational model to generate a comparison of DCCC characteristics to theory perspectives. The comparison leads to the researcher's suggestion of improvements to the existing program, and the exploration of an alternate program for meeting the DCCC needs, based upon the researcher's prior analysis.

Chapter V provides the researcher's Conclusions resultant from the preceding efforts, and Chapter VI enumerates the researcher's Recommendations for improving the Army's access to contracting skills in support of contingency operations.

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II. LITERATURE REVIEW

The following sections provide an overview of the sources of information used in order to develop an analytical approach to the research area. The first section, “Gansler Report,” discusses the contingency contracting personnel shortfalls currently experienced by the Army, setting forth the problem being considered in this research project. This is followed by an overview of the Deployable Civilian Contracting Cadre recruitment program, which is currently the main avenue by which the Army is seeking to meet the needs described in the Gansler Report. Following this, the Federal Acquisition Institute’s demographics of the federal contracting professional are reviewed to illustrate generally who it is that the recruitment program is seeking to attract. This is followed by reviews of three motivational models developed by Maslow, Herzberg, and Vroom, setting a basis for the following Analysis chapter.

A. GANSLER REPORT

The Commission on Army Acquisition and Program Management in Expeditionary Operations’ report titled “Urgent Reform Required: Army Expeditionary Contracting” (herein “Gansler Report”) discusses various findings in regard to ongoing contingency contracting activities, which are then linked to a series of recommendations. Put broadly, this report finds that the Army has been experiencing unfavorable levels of fraud, waste, and abuse during the Iraq War and later reconstruction efforts. The report indicates that the Army needs to undertake a systemic improvement which increases the number of contracting professionals, ensures that they are sufficiently qualified and remunerated, provides them with clear guidance, and reorganizes the contracting field to increase emphasis upon its criticality.

The Gansler Report’s key recommendation is to “increase the stature, quantity, and career development of the army’s contracting personnel, military and civilian (especially for expeditionary operations).” This recommendation is made in reaction to the commission’s perception that the Army’s contracting force has been experiencing increasingly complex missions at an increasing tempo, while the force’s relative

capabilities have not kept pace. Since the end of the Cold War through to about 1996, the number of contract actions and the amount of money involved had been decreasing, and the overall number of contracting personnel had decreased at a similar rate. However, in 1996, a key piece of legislation, that year's DOD Authorization Act, was passed with a stated goal of reducing the Acquisition workforce by 25 percent. This had the unfortunate timing of occurring just as the DOD Procurement budget was entering an upswing that would continue for the next decade, aggravated by the recent Global War on Terror. Meanwhile, the DOD Acquisition Workforce remained at roughly 200,000 personnel. The net result of these two forces was to create the present understaffing of qualified contracting personnel in relation to the acquisition workload. Figure 1 below, extracted from the Gansler Report, graphically depicts this recent trend.

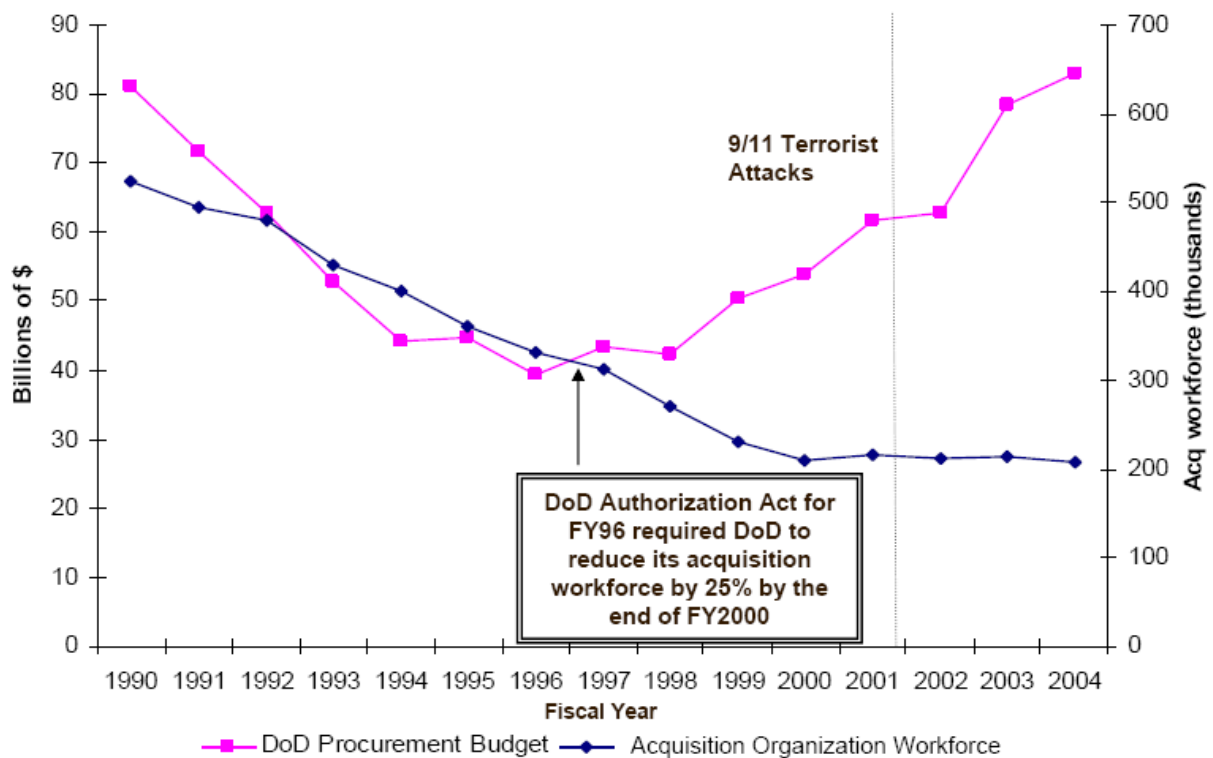


Figure 1. DOD Acquisition Trends Set the Tone for Army Expeditionary Contracting [From Gansler Report, Fig. 1, p. 30]

To continue the focus upon personnel, there is not only a shortage of manpower according to the report, but an imbalance in the Army's mix of military to civilian personnel. The report gives a combined total of 8.1% active duty and reserve personnel in contracting, versus a suggested minimum 20% military force. This imbalance is significant because the nature of contingency operations requires that resources be deployable immediately and in sufficient numbers to meet the task. Military personnel are substantially more agile in this respect because deployment has been an accepted fact of their careers from inception. Civilian personnel generally do not function under a deployable status, and are introduced to the contingency contracting environment only through volunteerism. Given the fact that the workforce is civilian-heavy, the difficulties with filling fielded contingency contracting positions are clear. As a contingency situation arises, open positions are immediately created which cannot be completely filled by the available military personnel. As the duration of operations grows, the personnel shortage becomes aggravated as military members rotate out of theater or leave the service entirely, while civilian contracting assets for the most part remain untapped.

The next logical step is to consider the reasons why civilians are not mobilizing themselves at a higher rate. The Gansler Report found several key disparities between how civilians and military benefit while serving in expeditionary forces. Civilian life insurance policies are negated during deployment, at a time when such insurance would be needed most. Additionally, civilians are not being provided with long-term health support for injuries received in theater. Given that the risks of injury or death are much higher in an expeditionary environment, there can be little doubt these two shortcomings would severely affect the attractiveness of volunteering. Meanwhile, these civilians are not offered the same tax benefits as military members, and often cannot qualify for an Armed Forces Civilian Service Medal. What motivations remain for civilian participation are left up to the individual.

Concurrent with these individual barriers to civilian participation in contingency contracting support, the commission also identified institutional resistances. Their report found that civilians are often discouraged from volunteering by their managers, who are reluctant to fund the export of their valued members using budgets not developed with

such expenses in mind. The managers also see that when the volunteer leaves, Army and DOD policies prevent the manager from backfilling the position. Applying a localized cost-benefit analysis, managers often decide that the losing organization's burden is too great in comparison to the distant benefits. As such, the Gansler Report found that supervisors actively discourage their personnel's involvement.

To correct the shortfalls, the Report recommends an increase of 400 military and 1,000 civilian contracting personnel, with another 583 added to bolster the Defense Contract Management Agency's (DCMA) mission. The combined effect of these actions would serve to address both the quantity shortages and the current imbalance of the military-civilian mix. The military personnel increases would be tied to the creation of several new General positions which would, by military personnel policy, generate numerous subordinate contracting positions. Some methods for affecting the civilian manpower shortcoming suggested by the report include: reversal of the current treatment of life insurance, health coverage, awarding of Service Medals, and more favorable taxation rules. These need to be enacted from the upper echelons of the American political and military structure, though there may be some serious political resistance to the life insurance legislation as well as to the health and taxation issues as the net effect is that Congress may face more obligations with less funds.

The more numerous and better-qualified personnel which the Gansler Report calls for are to be part of a revised organizational structure within the Army which places greater emphasis upon the value of contracting. Several new organizations are suggested to be created, such as an Army Contracting Command (ACC) under which would fit an Expeditionary Contracting Command, and Installation Contracting Command. A key benefit of the ACC is that its mission will include ensuring a "surge capability to resource the staffing needs of the Expeditionary Contracting Command when supporting deployed forces." Additionally, the Gansler Report's stated need for a proper and vetted set of guidelines and practices for contingency contracting operations would be developed by the ACC as part of its mandate.

The Gansler Report has raised awareness of deficiencies in Army contracting capabilities for the moment. What this suggests is that there may be a consensus on the

core issues to be resolved. Less clear is whether the associated implementation plans are sufficient to alter the landscape of contracting recruiting/retention. The Army's direct method for responding to the Gansler Report's issues has been through the development of the Deployable Civilian Contracting Cadre (DCCC).

B. CONTINGENCY CONTRACTING

1. Contingency Contracting Defined

According to 10 USC 101(a) (13), the term "contingency operation" means a military operation that—

(A) is designated by the Secretary of Defense as an operation in which members of the armed forces are or may become involved in military actions, operations, or hostilities against an enemy of the United States or against an opposing military force; or

(B) results in the call or order to, or retention on, active duty of members of the uniformed services under section 688, 12301 (a), 12302, 12304, 12305, or 12406 of this title, chapter 15 of this title, or any other provision of law during a war or during a national emergency declared by the President or Congress.

A declared contingency is a contingency situation which has been officially "declared" by an authorized entity. The declaration of contingency status creates the most flexible and efficient contracting environment possible in order to support pressing procurement needs. Some examples of the effects of a Declared Contingency are: numerous Federal Contracting statutes can be waived (to include CICA requirements, synopses, socio-economic considerations), the Defense Production Act/Defense Priorities and Allocation System makes government purchases the top priority for vendors, protested actions can be awarded before being resolved, and Simplified Acquisition Procedures are available for actions valued at up to \$5 million. These allow contracting professionals maximum flexibility and speed in meeting contingency requirements.

2. Contingency Contracting Phases

There are four major phases of Contingency Contracting operations: Mobilization/ Initial Deployment, Build-Up, Sustainment, and Termination/

Redeployment. Each of these phases has a particular timeframe identified in which they typically occur, but are not necessarily exclusive of each other. Some activities from one phase may coincide with activities of another phase, as appropriate to the ever-changing situation and depending upon the success of enemy actions to deprive our forces of personnel and materiel assets.

Phase One, Mobilization/ Initial Deployment, typically occurs during the first thirty to forty-five days of operations. The main goal of this phase is to provide a basic foundation of supplies and services which operations will require in order to function. Such issues as food, water, electricity, fuel, shelters, sanitation, security, and translators/guides (as necessary) are attended to during this period. These are an early priority, as the lack of any of these would severely degrade the effectiveness of ensuing operations.

Phase Two, Build-Up/ Stabilization, commences after approximately forty-five days of operations. This phase builds upon the accessibility and quality of the resources availed during the first phase by engaging in construction and infrastructure enhancements. The location becomes somewhat more comfortable for inhabitants as quality of life concerns like better food and recreation are addressed during this phase. Mission needs such as the establishment of a viable vendor base and the facilitation of coherent contracting support are given a priority, enabling the operations to begin making inroads toward overall contingency mission success. During this phase, military and support personnel continue to arrive as the operations seek to meet the required end-strength.

Phase Three, Sustainment, begins as Build-Up/ Stabilization activities subside. Sustainment focuses upon enhancing the capabilities set forth during the previous phases, bringing them closer to the capabilities of non-contingency activity. In order to do so, Contracting establishes more efficient contract types such as indefinite delivery/indefinite quantity, requirements, and Blanket Purchase Agreements. As activities take on some semblance of normalcy, required supplies/services are “pulled” by formalized purchase requests from the customer rather than pushed to them based upon pre-planned needs. This is a more efficient resource allocation method that isn’t practicable during the

chaotic early phases. Competitive solicitations become much more common as the vendor base expands, meanwhile internal procurement/logistical controls are enhanced in order to facilitate better oversight and accountability. As this phase draws to a close, plans and contracts that will support the next phase begin to be developed.

The fourth and final phase, Termination and Redeployment, takes place when the contingency forces begin the withdrawal process. This phase is marked by a shift in focus toward materiel and personnel transportation and the tying up of contractual “loose ends.” Contracting personnel will seek to terminate remaining agreements, and acquire audit and other supporting information to enable contract close outs. Accountability is a priority during this final phase, as much of the activity that occurred throughout the contingency operations will be subject to scrutiny in light of the level of political success that the activities achieved and the total costs thereof. This final phase’s events would reflect the priorities of leadership’s overall strategy for exiting the contingency environment.

C. DEPLOYABLE CIVILIAN CONTRACTING CADRE

The Deployable Civilian Contracting Cadre is a program devised by the Army Materiel Command to address its identified need for contracting civilians in support of combat/reconstruction efforts. The stated goals for the DCCC are to accumulate an available reserve of highly-skilled civilian contracting professionals which can be tapped to provide necessary expertise on short notice. These civilians must be willing to deploy to the theater of operations, as reinforced by standing agreements between members and Army Materiel Command (AMC). The DCCC was activated in mid-2006, and underwent a revision to the terms and incentives in April of 2008 in hopes of enhancing recruiting effectiveness.

The DCCC is intended to support a wide range of contracting activities, from the simpler small purchases to major construction. Additionally, the professionals of the DCCC could also expect to perform the acquisition of services and develop indefinite delivery-indefinite quantity contracts. The workload can be expected to be heavy and

stressful, given the nature of the theater support mission, and as such the expertise of DCCC recruits will figure heavily into the efficiency and effectiveness of their activities under such demands.

In order to be considered for inclusion into the DCCC, certain health qualifications apply. Prospective DCCC members are subject to medical and dental screening to an extent comparable to pre-deployment military members. Rather than a military-style weight standard, recruits would simply need to fall under a Body Mass Index score of 40 (the U.S. average is approximately 18 for men and 23.5 for women). The physical qualifications are rounded out by standard physical examination upon application and within 30 days of deployment.

Upon medical qualification, DCCC applicants are expected to possess a series of basic technical qualifications for entry into the cadre. Each applicant must already be certified Level II in Contracting by the Defense Acquisition University (DAU) in accordance with the Defense Acquisition Workforce Improvement Act (DAWIA). In addition, the applicant must be capable of holding at least a Secret Clearance, and possess a performance history which indicates an appropriate level of competence. Several DAU courses which have been identified as desirable include “Contingency Contracting Course,” “Simplified Acquisition Procedures,” and “Construction Contracting,” augmented by the basic Government Purchase Card training. Upon acceptance into the DCCC, deployment-related training is provided to enhance the member’s preparedness.

In order to serve the DCCC’s stated goals, AMC must have cadre members “locked in” for deployment when needs arise. As such, the basic tool to do so is the Emergency Essential Position Agreement (DD Form 2365), which the DCCC member would renew on an annual basis. This form’s verbiage requires the signatory to specifically affirm their understanding that “performance of the duties of this position during a crisis situation or wartime will require that the individual: relocate to a duty station in an overseas area, or, continue to work in an overseas area after the evacuation of others who are not in civilian emergency-essential positions. In support of this agreement, DCCC members are to maintain official as well as tourist passports (reimbursable).

The DCCC recruitment program's (DCCCRP) tangible component is additional pay, which is provided in varying amounts and based upon various prerequisites. The basic reward for participation is the "retention incentive," which provides a taxable year-end bonus to the member on a graduated scale of \$5,000 for the first year, \$7,000 for the next, and \$10,000 per year beyond. When the cadre member is deployed, that person qualifies for two additional taxable pay increases, the "Deployment Incentive," and the "Foreign Post Differential/ Danger Pay." The Deployment Incentive is another fixed-value payment of \$15,000 which the member would receive upon deploying. The Foreign Post Differential / Danger Pay is a proportional incentive based upon a function of the member's current pay rate and the perceived danger of deployment (valued at between 10%-35%).

The DCCCRP also proposes that members will receive important intangible benefits from the 179-day deployments. The program offers that the DCCC is a "rewarding experience" for those who participate in the critical contingency missions. In addition, cadre membership is claimed to provide a "career enhancing" addition to one's resume and skill sets. The DCCCRP literature provides no specific guarantees that participation will favorably influence future personnel actions.

D. DEMOGRAPHICS: FEDERAL ACQUISITION WORKFORCE

One of the secondary research questions undertaken by this research project asks "what are the demographics of current Army contracting personnel?" This question is posed under the deductive logic that a recruitment program's effectiveness is dependent upon its designers' understanding of the target population. To that end, general information from the Federal Acquisition Institute's (FAI) Annual Report on the Acquisition Workforce for 2007 was extracted for analysis.

The FAI report notes: "The data in this report were derived from the Central Personnel Data File (CPDF), which is established and maintained by the Office of Personnel Management (OPM). Data in this report, unless otherwise noted, are current as of September 30, 2007." Their report "covers personnel in the Executive Branch. However, it does not cover employees of the U.S. Postal Service, the Postal Rate Commission, the Board of Governors of the Federal Reserve Board, the White House

Office, the Office of the Vice President, the Tennessee Valley Authority, the Defense Intelligence Agency, the Federal Bureau of Investigation, the Central Intelligence Agency, or the National Security Agency.”

The FAI report provides several broad measures of the characteristics of DOD 1102s which can be expected to generally reflect the characteristics of the Army 1102 population. The mean 1102 age was determined to be 46.46 years old, with 14% eligible to retire in FY07 and 54% finding themselves within 10 years of retirement eligibility. The 1102 population’s average GS level is 11.68, with an average income of \$73,994 annually, exceeding the (2006) U.S. median income of \$48,200 (U.S. Census Bureau, Aug 2007) by 53%.

The FAI report also identifies a 75% bachelor’s degree attainment rate which is far beyond the national average of 29%, and a clear indication of the Defense Acquisition Workforce Improvement Act’s (DAWIA) influence. Of particular interest to those seeking an understanding of a major portion of the 1102 workforce is this quote from the FAI report:

The number of newly hired personnel in the Contracting Series (GS-1102) with college degrees has increased steadily, from 52% in FY 1998 to 81% in FY 2007 [see Table 7-02-1, Turnover in the Contracting Series (GS-1102) FY 1998 - FY 2007]. These new hires come with an expectation of increased training and challenging work as well as a clear path for professional development and advancement.

The FAI report does not provide direct data in regard to the 1102 population’s distribution of age groups (i.e., “18-25,” “26-30,” etc.), or years of contracting experience, or certification levels. The report notes that 18%, 43%, and 64% of Army 1102s are eligible to retire in FY2007, 2012, and 2017 respectively, but does not provide population-spanning groupings by number of years from retirement which would more completely depict the distribution of the population. However, the following tables depict related data such as grade level, salary, near-term retirement eligibility and new hires from college (presumably the majority of whom are of the traditional “college age”). Additionally, the tables reveal that at 60% female, the 1102 series in general presents a 50% greater number of females than males.

Fiscal Year:	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Beginning Strength	28,003	27,400	26,775	26,751	26,608	27,294	26,849	26,936	27,589	27,944
DOD	19,701	19,226	18,787	18,756	18,565	18,885	18,393	18,322	18,749	18,928
Civilian Agencies	8,302	8,174	7,995	7,995	8,043	8,409	8,456	8,614	8,840	9,016
Attrition	2,134	2,188	1,843	1,947	1,761	2,197	2,443	2,108	2,255	2,247
Attrition Rate	8%	8%	7%	7%	7%	8%	9%	8%	8%	8%
Attrition of Persons Eligible To Retire in That FY	343	637	440	613	586	834	884	860	779	771
Attrition Rate of Persons Eligible To Retire in That FY	18%	23%	17%	19%	16%	16%	19%	17%	17%	19%
Total Hires	1,531	1,563	1,819	1,804	2,447	1,752	2,530	2,761	2,610	2,737
Percent Hires With College Degrees	52%	59%	57%	73%	75%	78%	79%	80%	76%	81%
Net Change	-603	-625	-24	-143	686	-445	87	653	355	490
End Strength	27,400	26,775	26,751	26,608	27,294	26,849	26,936	27,589	27,944	28,434
DOD	19,226	18,787	18,756	18,565	18,885	18,393	18,322	18,789	18,928	19,119
Civilian Agencies	8,174	7,988	7,995	8,043	8,043	8,456	8,614	8,840	9,016	9,315

Table 1. Turnover in the Contracting Series (GS-1102)) FY 1998 - FY 2007 [From Federal Acquisition Institute (FAI) Annual Report on the Federal Acquisition Workforce Fiscal Year 2007, Table 7-02-1, p. 28]

GS Grade	Population on 09/30/2007	Female	Supervisory/ Managerial	College Graduates
5	122	52%	NA	80%
7	1,237	60%	NA	86%
9	1,931	61%	NA	76%
11	4,479	62%	1%	69%
12	8,236	64%	3%	68%
13	4,526	59%	14%	78%
14	1,726	56%	35%	84%
15	654	51%	69%	91%
Other	3	67%	0%	0%
NS	5,520	57%	37%	78%
Total	28,434	60%	14%	75%

Table 2. Females, Supervisors, Managers & College Graduates in the Contracting Series (GS-1102) by Grade FY 2007 [From Federal Acquisition Institute Annual Report on the Federal Acquisition Workforce Fiscal Year 2007, Table 7-02-4, p.31]

Salary Level	Population on 09/30/2007	Female	Supervisory/ Managerial	College Graduates
\$20,000-29,999	45	47%	NA	89%
\$30,000-39,999	1,105	59%	NA	89%
\$40,000-49,999	1,934	61%	NA	81%
\$50,000-59,999	3,673	61%	1%	74%
\$60,000-69,999	4,882	63%	4%	70%
\$70,000-79,999	4,807	65%	8%	67%
\$80,000-89,999	4,730	61%	14%	72%
\$90,000-99,999	2,913	58%	24%	79%
\$100,000-109,999	2,055	54%	33%	81%
\$110,000-119,999	926	51%	52%	85%
\$120,000-129,999	702	48%	59%	88%
\$130,000-139,999	337	47%	72%	91%
\$140,000-149,999	225	34%	73%	88%
\$150,000+	74	31%	95%	93%
Not Stated	26	69%	4%	73%
Total	28,434	60%	14%	75%

Table 3. Females, Supervisors, Managers, & College Graduates in the Contracting Series (GS-1102) by Salary Level FY 2007 [From Federal Acquisition Institute Annual Report on the Federal Acquisition Workforce Fiscal Year 2007, Table 7-02-5, p.31]

	Internal Hires	External Hires	Source Not Identified	Changed Agencies	Remained with Agency	Population on 09/30/2007
Total	1,115	1,509	113	1,123	24,574	28,434
Percent FY 2007 Workforce	4%	5%	0%	4%	86%	100%
Percent College Graduates	74%	88%	66%	85%	74%	75%
Percent Business, Law, or Public Administration Majors	65%	67%	61%	70%	65%	65%
Average Age	43.60	34.32	44.42	44.78	47.42	46.46
Percent Eligible To Retire in FY 2007	7%	1%	14%	9%	15%	14%
Percent Eligible To Retire in FY 2012	21%	4%	26%	30%	36%	34%
Percent Eligible To Retire in FY 2017	42%	16%	48%	53%	58%	55%

Table 4. Contracting Series (GS-1102) Hires During FY 2007 [From Federal Acquisition Institute Annual Report on the Federal Acquisition Workforce Fiscal Year 2007, Table 7-02-6, p. 33]

E. MASLOW'S HIERARCHY OF NEEDS THEORY

Abraham Maslow's "A Theory of Human Motivation," published in 1943, provides a useful basic framework for understanding the underlying elements of the typical American's search to fulfill extrinsic, then higher-order intrinsic needs. A central theme of this theory is that humans are in constant and various states of real and perceived deficiencies and/or deprivation across several key areas. It is the amount of deprivation in each area from extrinsic to intrinsic, and the relative value of filling the next higher need, which provides a basic predictor as to where individual energies might be focused.

Maslow used the term "prepotency" to explain the relationship between various needs. Prepotency in this usage refers to a trait which is dominant or superior in drive to another trait. As Maslow's hierarchy is explored, it is important to note that prepotency does not create an absolute favoring of one trait over another, just a generally greater favor. Also key to the reasonable employment of the prepotency concept in the understanding of the hierarchy is the caveat that the pursuit of one prepotent need does not have to be fully satisfied in order for the individual to seek satisfaction of a portion of the next higher need level. Were the following needs so dominant in their hierarchy that humans would solely focus upon the prepotent unfulfilled need of the moment, humanity's inability to delay gratification would have caused an infinite number of interruptions to productivity, to such an extent as to impede any development of advanced civilization.

The hierarchy of needs is composed of the following need levels, in order of prepotency: physiological, safety, love, esteem, and self-actualization. Put another way by Maslow: "a person who is lacking food, safety, love, and esteem would most probably hunger for food more strongly than for anything else." The physiological needs are those which would feel most compelling "in the human being who is missing everything in life in an extreme fashion," and include homeostatic basics such as food, drink, sleep, and sex. Safety need components are identified by Maslow as physical protection, financial stability, a predictable world, etc. The love need is comprised of personal relationships and community, affection and belonging. Esteem needs include such drives as

achievement, status, respect, recognition, reputation, and superiority. The final, and non-prepotent, need type is the need for self-actualization- perhaps the most indefinite need type in that it is the one which will fluctuate most based upon the individual's tastes, interests, and ideals.

Maslow's concept, then, posits that in order for an individual to focus upon fulfilling the elements of the love need, that person must have reached a sufficient extent of physiological need satisfaction. Likewise for the other needs, in order of prepotency. The contrary would then hold true- were an individual to be satisfied in the prepotent needs to such an extent to be focused on the self-actualization, then suddenly face deprivation in prepotent needs, that individual would be expected to release their focus upon self-actualization in order to regain satisfaction of the lost prepotents. Maslow supports this scenario when he explains that "the physiological needs, along with their partial goals, when chronically gratified cease to exist as active determinants or organizers of behavior. They now exist only in a potential fashion in the sense that they may emerge again to dominate the organism if they are thwarted."

In an individual's need-deprived state, "the dominating goal is a strong determinant not only of his current world-outlook and philosophy but also of his philosophy of the future. Practically everything else looks less important than [the unfulfilled prepotent]." There is, however, an exception for this force. An individual may develop a tolerance of deprivation based upon previous satiation, as in "those who have loved and been well loved, and who have had many deep friendships who can hold out against hatred, rejection or persecution." Yet, an individual might also develop an intolerance of deprivation based upon previous satiation- an issue that will be discussed later in further detail under Herzberg's model. Maslow also points out that in his model, "a satisfied need is not a motivator. It must be considered for all practical purposes simply not to exist, or to have disappeared."

Maslow's Hierarchy provides a framework for identifying the individual factors in play during decision-making, with an informative ranking thereof. In attempting to predict the motivations of individuals, one can seek to identify the extent to which each of these areas is satisfied or unsatisfied, and thereby arrive at a general prediction of

where that individual's focus is likely to fall at a given time. When those predictions have weak correlation with desired behavior, efforts to affect those areas to the individuals' tastes (via results of desired behavior) would rationally lead to the desired behavior, if effectively communicated to the individuals.

F. HERZBERG'S MOTIVATION-HYGIENE THEORY

Frederick Herzberg's Motivation-Hygiene Theory was published in the 1959 book, "The Motivation to Work." This tome explored workplace behavior, as related to the employee's perceived environmental situation. The theory is based upon Herzberg's analysis of survey results from approximately 200 white-collar workers in the Pittsburgh area. Specifically, the sample population was comprised of accountants and engineers who were interviewed with the aim of identifying workplace experiences having a positive or negative effect upon morale, the frequency with which those experiences resulted in an effect upon morale, and the groups into which such experiences could be organized. The study identified commonalities of experiences and perceptions which led to Herzberg's behavioral model.

His work contended that these environmental elements could be classified as either "Motivators" (intrinsic satisfiers) or "Hygiene" (extrinsic dissatisfiers), and that the effects of treating, or leaving untreated, the environmental elements would vary dependent upon which classification the element fell into. Herzberg held that "factors influencing job attitudes do not operate along a continuum, some factors affect job attitudes only in a positive direction," while other factors might affect job attitudes only in a negative direction. Thus, elements falling into the Hygiene classification could contribute negatively to a person's motivation levels, and yet removal/reduction of the dissatisfier would not result in higher motivation. The elimination of dissatisfiers would merely reduce motivational "drag." Conversely, Motivators function generally from the neutral to positive range for human motivation, providing additional motivation when extant, however, when satisfiers are lacking, the motivation level (as pertains to that satisfier) is not expected to fall appreciably below the neutral. Herzberg offered the caveat that in the application of his theory, it should be noted that "this unidirectional effect was truer of dissatisfiers than satisfiers."

In issues relating to the Hygiene concept, Herzberg notes that the “existence of negative factors would lead to an unhappy employee. The satisfying of these factors, however, would not create a happy employee.” An example of such a dissatisfier in action could be the availability of functional toilets in an office environment. In the absence of such a convenience, many individuals would become irritated, their opinion of their work environment thus being lowered. However, the restoration of functional toilets for individual use would only serve to eliminate that source of dissatisfaction, without contributing much to measures of satisfaction. Herzberg thus states that “improvements in factors of hygiene will serve to remove impediments to positive job attitudes.”

Herzberg provided several other examples of workplace dissatisfiers under the Hygiene classification, such as “supervision [both intensity and intrusiveness], interpersonal relations, physical working conditions, salary, company policies and administrative practices, benefits, and job security.” He goes on to add that “when these factors deteriorate to a level below that which an employee considers acceptable, then job dissatisfaction ensues. However, the reverse does not hold true.” In fact, “all we can expect from satisfying the needs for hygiene is the prevention of dissatisfaction and poor job performance.”

Herzberg’s Motivators function in contrast to the Hygiene factors by acting “to increase the individual’s job satisfaction, but the failure of these factors [satisfiers] to occur would not necessarily give rise to job dissatisfaction.” Thus, the presence of satisfiers in the work environment provides a force acting to draw personnel beyond the work-neutral status and into the motivated state. Contrarily, “the absence of satisfaction to these factors would merely drop him back to this neutral level, but would not turn him into a dissatisfied employee.”

As Herzberg had put forth several canonical representatives of Hygiene, so does his model identify Motivator counterparts. Achievement, recognition, responsibility, and advancement are each major motivational areas influencing worker mindsets. These satisfiers are listed in descending order of importance, as indicated by the magnitude of worker response central tendencies entabulated in Figure 2 below:

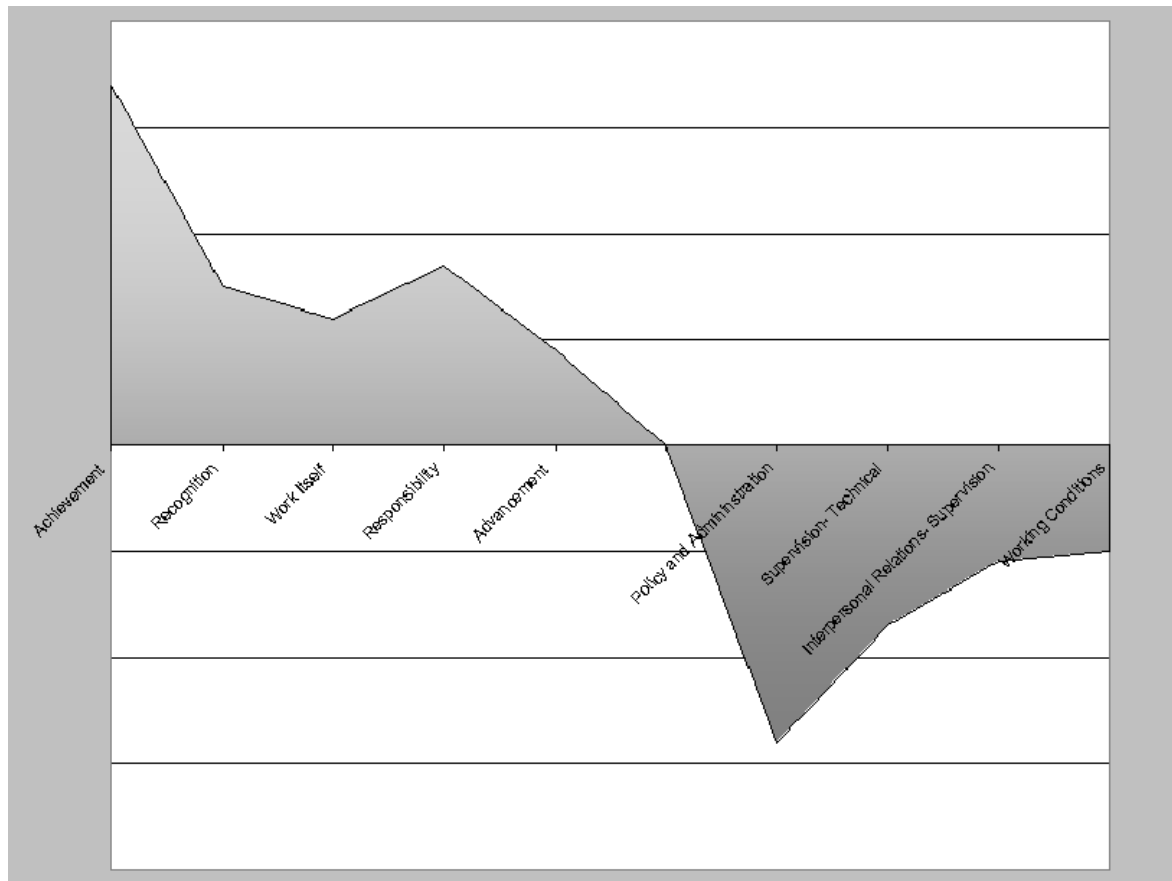


Figure 2. Central Tendencies of selected Herzberg data

The dual nature of salary makes this Motivation/Hygiene-spanning factor particularly interesting and important. Herzberg's data indicated that dependent upon the circumstances, salary can in fact function as both a satisfier and dissatisfier for employees. In the above figure, salary's central tendency would reside roughly at zero due to the data's balance in regard to salary's positive and negative forces. An employee's salary first has obvious characteristics in that a basic amount affords one with survival (Hygiene), and a greater amount supports discretionary spending (Motivation). However workers also ascribe deeper meanings to salary, which Herzberg's model illuminates. In that salary can be an indicator of the extent of (un)fairness in employees' relative treatment, salary is a Hygienic force. In the situations where salary arrives as a manner of recognition for performance, it again functions as a Motivational force.

Herzberg's theory indicates that the congruence between the work's characteristics/environment and the internal desires of the individuals has great influence upon motivation levels. The interaction of the various satisfiers and dissatisfiers synthesize to form a general motivational condition for the worker (dependent upon that worker's standards and perceptions). The importance, then, for managers is that they must differentiate between, and consider, both satisfiers and dissatisfiers as they evaluate the conditions in which their employees work.

The model leads managers to consider that attempting to add satisfiers to the work environment whilst dissatisfiers are rampant is unlikely to meet with much motivational improvement overall. Thus, the negative pull of active dissatisfiers serves to neutralize the pull of the satisfiers which the managers may have attempted to insert into the environment. On the other hand, Herzberg notes that "the fewer the opportunities for the "motivators" to appear, the greater must be the hygiene offered in order to make the work tolerable." Herzberg's book emphasizes this important balance of minimizing dissatisfiers while enhancing satisfiers. To wit: "if the major rewards in our society are hygienic.. there is little motivation for the fulfillment of the highest potentiality in the work of each individual." Further, "when incentive systems do not permit any of the motivators to operate, then any increase in performance or in apparent job satisfaction is misleading. For in these instances the removal of a decrement in performance by the elimination of job dissatisfaction is often mistakenly referred to as a positive gain in performance."

G. VROOM'S EXPECTANCY THEORY

Vroom's Expectancy theory explored the belief that "actions on the part of individuals could, at least in part, be accounted for in terms of their preferences among outcomes and their expectations concerning the consequences of their actions for the attainment of these outcomes." The theory has three main components: Expectancy, Instrumentality, and Valence. Expectancy represents the perceived likelihood of an amount of effort resulting in a desired outcome. Instrumentality represents the perceived usefulness of that outcome, in relation to other choices. Valence, then, is the perceived value of the outcome.

Vroom differentiates between the variables in that “expectancy is an action-outcome association” whereas “instrumentality... is an outcome-outcome association.” “An expectancy is defined as a momentary belief concerning the likelihood that a particular act will be followed by a particular outcome. Expectancies may be described in terms of their strength. Maximal strength is indicated by subjective certainty that the act will be followed by the outcome while minimal (or zero) strength is indicated by the subjective certainty that the act will not be followed by the outcome.” In this sense, expectancy relates to the initial outcome of an action, with instrumentality representing the outcomes which are contingent upon that initial outcome. For example, a man weighing a decision to break into a bakery considers the expectancy of acquiring bread through the crime. The follow-on ability to satisfy his child’s hunger with that bread represents the instrumentality of the successful crime.

Vroom goes on to explain that “an outcome is positively valent when the person prefers attaining it to not attaining it (that is, he prefers x to not x). An outcome has a valence of zero when the person is indifferent to attaining it or not attaining it (that is, he is indifferent to x, or not x), and is negatively valent when he prefers not attaining it to attaining it (that is he prefers not x to x). It is assumed that valence can take a wide range of both positive and negative values.”

The “force” motivating selection of a particular action is represented in simplest form by the equation: $\text{Valence} \times \text{Expectancy} = \text{Force}$. What this depicts is that the perceived value of an outcome, as modified by its perceived likelihood to occur as a result of particular behavior, results in the motivational force to undertake the behavior. Where most actions have several expected outcomes of varying instrumentality and valence, with each outcome perhaps having a slightly different perceived likelihood of occurrence, the real-world cognition of choices complicate the equation greatly to account for multiple strings of perceptions simultaneously.

Vroom notes that “the important feature of the model... is its view of behavior as subjectively rational and as directed toward the attainment of desired outcomes and away from aversive outcomes.” The Expectancy Theory is particularly useful for the way in which it sets out a framework for understanding the behavior of individuals, as influenced

by their perceptions. Managers who desire increased motivation amongst their employees need to influence the perceptions of Probability, Instrumentality, and Valence in such a way that the desired behavior is the logical result of the individuals' rationalizations of alternatives- the probabilities of benefits and values thereof. By affecting an individual's expectations, so can the individual's behavior be affected. "If we assume that individuals' desires and aversions are not relatively stable but vary predictably with incoming stimulation, an alternative method is suggested. We should be able to increase or decrease the valence of outcomes by arousing appropriate motives."

Vroom also draws attention to the assertion that individuals' knowledge of the variables is already imperfect, especially in unfamiliar situations left to conjecture for estimation. He writes: "How legitimate is it to assume that people can accurately estimate the actual probabilities of events? If a person has had a considerable amount of experience in the situation attempting different courses of action and if he has been provided with prompt feedback following those actions, it might be appropriate to assume that his expectancies approximate actual probabilities." Conversely, this suggests that when management does not affirmatively address the unknowns of a particular behavior, the individuals fill in the blanks themselves, likely imperfectly, and quite possibly counter to reality or the desires of management.

III. ANALYSIS

In order for the DCCC's recruitment efforts to succeed, prospective volunteers must believe that when all considerations are weighed, participation is clearly preferable to non-participation. This basically mirrors Vroom's explanation that his "model leads us to predict that, given the opportunity, a person will choose to [participate in the DCCC] when the valence of outcomes that he expects to attain from [participating] is more positive than the valence of outcomes that he expects to attain from not [participating]." As indicated by the theories and information discussed in the preceding Literature Review, the factors involved in the decision-making process are numerous and many may be latent. Each motivational model presented a particular perspective on identifying the issues and processes involved in the act of determining whether a person is motivated to participate in an activity. Thus, the extent to which the DCCC program and literature effectively influences these factors' evaluation in favor of participation can be expected to predict the extent of participation itself.

To facilitate analysis of the recruitment program's effect upon prospective members' decision making processes, the three motivational models are merged into a Composite Motivational Model. This model first takes as a given that amongst a decision's operant factors, Vroom's equation: "Valence x Expectancy = Force," describes the basic functionality of any factor's influence. This is in keeping with Vroom's model which "asserts that the probability of a person performing an act is a direct function of the algebraic sum of their products of the valence of outcomes and expectancies that they will occur given the act." In order to determine each factor's Force upon the decision making process in accordance with Vroom's model, the Expectancy must be assessed against the predicted Valences. Expectancy is a function of the extent to which the likelihoods of an outcome are controlled by a recruitment program. Especially in the absence of program comment, Expectancy is also determined by each person's own experience and cognitive process.

The works of Maslow and Herzberg are utilized by the Composite Motivational Model to aid in explicitly identifying specific subfactors operant in the decision-making

process. Herzberg's division of subfactors into satisfiers/dissatisfiers (intrinsic/extrinsic) serves to inform whether the central tendencies of each subfactor in play contributes positively or negatively to valence. Maslow's hierarchy of needs also generally orients the relative importance of each subfactor, which further impacts the valence.

The following figure illustrates a portion of the Composite Motivational Model, in which factor groups are identified and assembled on a continuum. Implicit within each representation of a factor group are numerous subfactor issues being actively assessed by a decision maker. For instance, the "Physiological" factor group represents the net effect of subfactors such as food, drink, fatigue, and so on. The relative widths of the factor groups represent the prepotence of each factor group as according to Maslow. This also captures Maslow's assertion that each factor group can be in varying states of satisfaction, their relative satisfactions determinant of an individual's current motivational foci. The volume of each factor group's column therefore represents the weighted Force which that factor can exert upon a decision. The colored area within represents, based upon perceptions of expectancy and valence/ instrumentality, the actual force within that possible range which is being exerted. For "Motivator" factor groups, the blank space represents untapped positive Force, whereas for the "Hygiene" factor groups, the blank space represents mitigated negative Force.

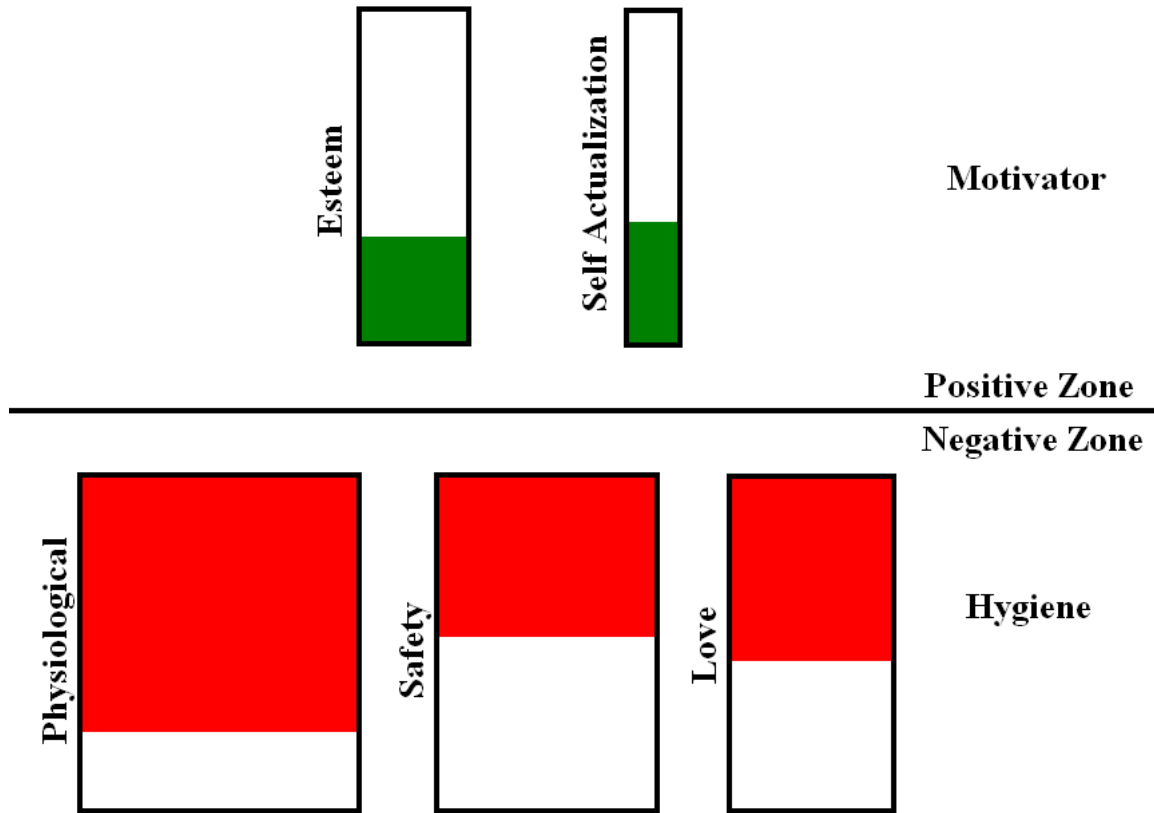


Figure 3. Composite Motivational Model

Given the above, each factor group can next be envisioned as tied to a combined “decision point” which rests in the Positive or Negative decision zones based upon the combined effect of the factor groups’ Forces. When the perceived benefits of appropriately-weighted factors serve to generally outweigh the perceived detriments, the decision point moves to the Positive zone, and the rational person should choose to undertake that course of action. The reverse would be true for inputs which create a preponderance of Force favoring a Negative decision. There is no Neutral area, as the decision to undertake a particular course of action is a “Yes/No” binary, and any alternate solutions to a scenario would each be represented by a separate figure. The figure below illustrates the weighted forces of Hygiene exceeding the weighted forces of Motivators, resulting in a Decision Point pulled into the Negative Zone, which represents a “No” decision.

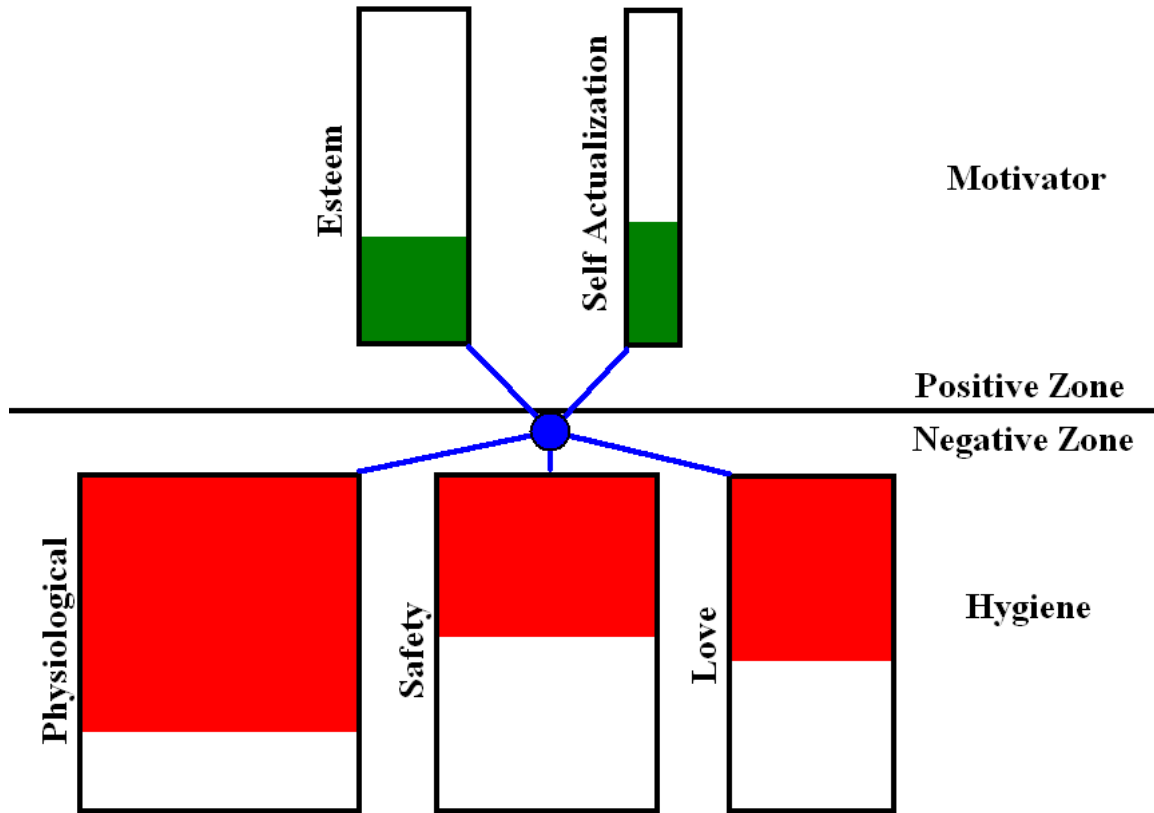


Figure 4. Composite Motivational Model with Decision Point

In order to affect the location of the decision point, a recruitment program must influence as many subfactors within each factor group as necessary to move the decision point into the program's favor. A recruitment program would be able to do so by making specific reference to the maximized positive (or minimized negative) valence, and degree of expectancy, of that subfactor during participation. The recruitment program might also seek to "create" subfactors as well, attempting to dictate their valence and expectancy, thus producing a favorable force. An example of this could be the mythopoetic generation of an ideal for which people should strive. Since the program has created the ideal, the program has the advantage of primacy in setting the definition of the ideal and its recommended valence. This would provide the program with an unusually strong influence in the overall force applied by the ideal upon the decision-making process.

IV. ACTIVITIES

In this chapter, the Composite Motivational Model developed in the preceding chapter is applied to the DCCCRP's published information in order to identify areas of opportunity for improvement of the existing DCCCRP. The researcher then explores some specific solutions for addressing the areas of opportunity. In addition, the researcher develops an alternative approach to resourcing the capabilities required to support the DCCC mission which seeks to eliminate, rather than mitigate, major dissatisfying extrinsic forces.

A. DCCC ENTERED INTO THE COMPOSITE MODEL

The sheer complexity of accurately mapping-out the full range of expectancies and valences across all pertinent subfactors, while also compensating for the tastes of each individual within the DCCCRP's target pool, precludes any such notion. Vroom predicts this challenge when stating that "we have tended to emphasize situational effects and ignore individual differences... this omission introduces substantial inaccuracies, particularly in the prediction of intrinsic motivation. Differences in both actual and ideal self-concepts as well as internalized codes of conduct are likely to be associated with marked differences in the intrinsic sources of affect in the conduct of one's job" (xxi). Any attempt to do so is only further complicated by the latent forces influencing a particular person's decisions, whereby prospective DCCC participants may be incapable of fully identifying the influences upon their own behavior for the benefit of those attempting to improve the DCCCRP.

Prospective DCCC volunteers can also be expected to vary in their responsiveness to Motivation and Hygiene subfactors in accordance with their demographics. As the FAI report indicated, the pool of DOD contracting professionals is not evenly distributed in age nor experience. With a mean age of 46 years old, and 54% within 10 years of retirement eligibility, a large proportion of DCCC prospects are late in their career. Meanwhile relatively large numbers of interns are also entering the profession from college, creating another major demographic group with perspectives likely quite

different from those of the imminent retirees. Not least, there are two well-represented genders populating the 1102 field, which adds further complication to the scenario.

Adding to the difficulty of the DCCCRP's task, there is an issue which could be called "Hygiene creep." Due to Hygiene creep, the government is competing with its own successes in improving the workplace for non-deployed personnel. Examples of such environmental parameters might include comfortable/safe working conditions, dedicated personal office space/equipment, Alternate Work Schedules, Teleworking programs, and "Family-friendly" leave policies. The FAI data indicated that the Army already pays competitive salaries (though low relative to other Federal agencies), providing an average income of \$73,994 annually, which exceeds the (2006) U.S. median income of \$48,200 by 53%. As each of these workplace improvements have become the norm, the Hygiene status for those parameters often rises commensurately. This clearly affects the prospective participant's assessment of the decision, as valences will be affected by the differential between the outcomes' utilities. Thus, the extent of Hygiene creep is also a complicating individually determined parameter to be wrestled by a behavioral model, a function of personal interpretations of varying work environments.

Acknowledging the impossibility of an all-encompassing model pertinent to all individuals targeted by the DCCCRP, the following use of the composite motivation model attempts to provide a rough tool. Figure 5 arranges the subfactors, which the DCCCRP has specifically addressed per this composite decision model to provide an initial structure through which to deduce the areas of the recruitment program's weakness. Based upon the insufficient levels of interest in DCCC participation so far, it is reasonable to place the decision point in the negative area (representing the target non-participants), and note that regardless of how particular subfactors' forces are comprised, their net effect is such that overall the Hygienic forces are exceeding the Motivating forces.

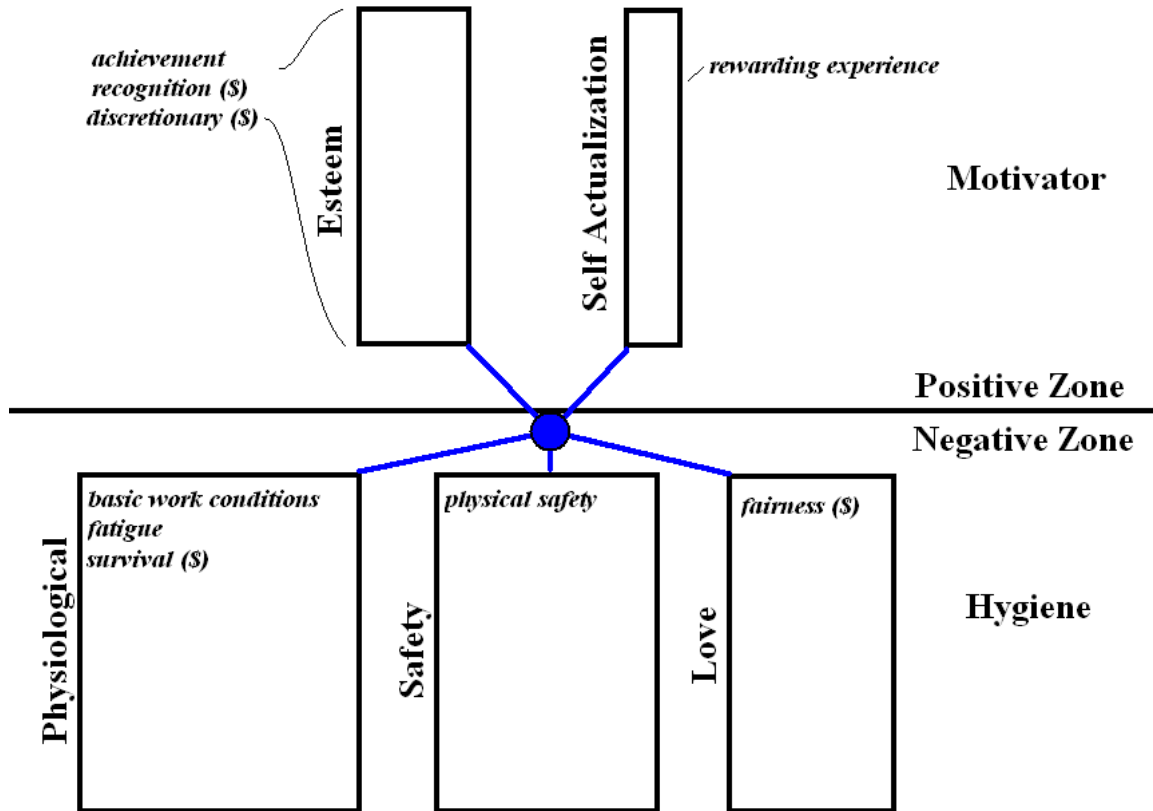


Figure 5. DCCC subfactors entered into Composite Motivational Model

Overlaying some additional subfactors specified by the models of Herzberg and Maslow onto the issues which the DCCC addresses leads to several immediate observations. There are quite a few subfactors which the DCCC does not comment upon within each factor group. While some of the canonical subfactors of the Physiological and Safety factor groups are represented in the DCCCRP, many of the subfactors under Love, Esteem, and Self-Actualization appear unrepresented (see below figure). This indicates that prospective participants in the DCCC may be “filling in the blanks” themselves as to what the DCCC experience may comprise.

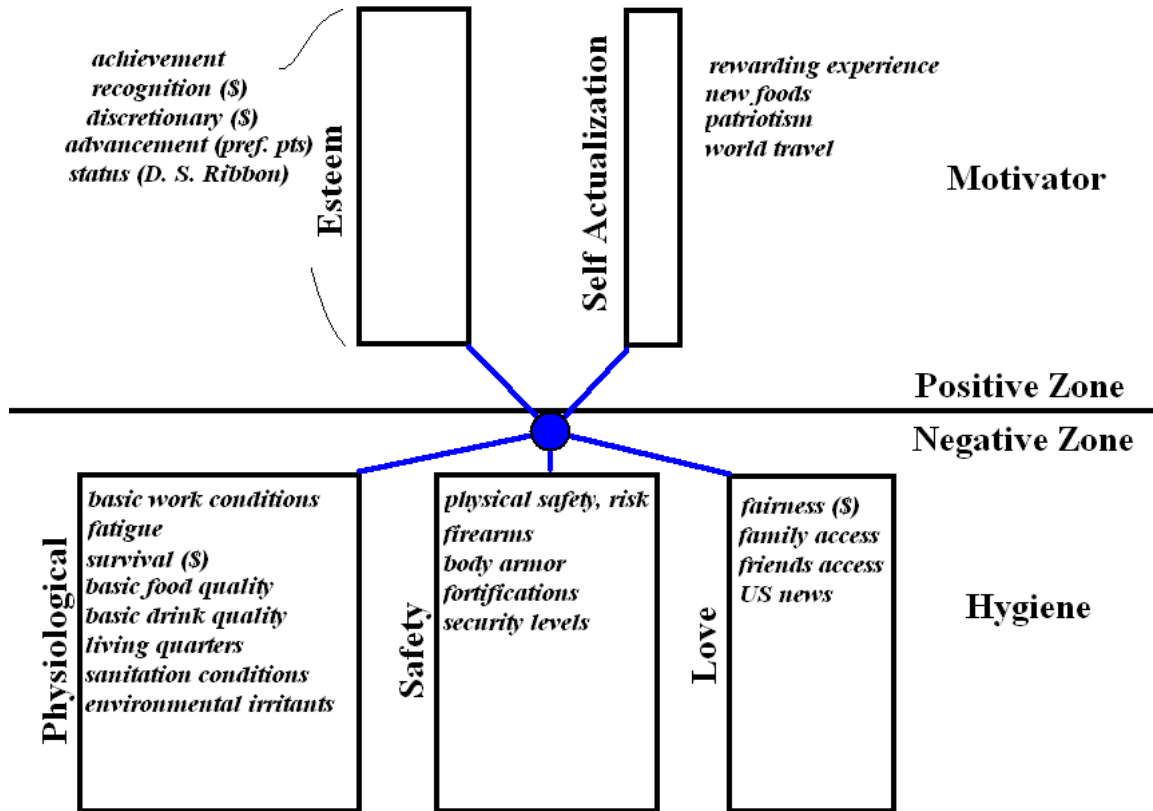


Figure 6. Additional subfactors entered into Composite Motivational Model

The DCCCRP provides clear discussion in regard to the expectancies and valences of several decisive subfactors. In doing so, the DCCC exercises an opportunity to influence those forces' impact upon the location of the decision point (as first depicted in Figure 4).

For instance, in terms of salaries and bonuses, the DCCCRP sets forth specific dollar figures and criteria for payment, allowing a prospective member to accurately gauge the valence and expectancy of the monetary factor. The DCCCRP salary discussion identifies concrete amounts of additional pay and clear formulas for the extent and timing of the pay. People are experienced with the government's ability to follow through on a promise of payment. To the extent that the government is reliable in providing the levels of pay promised, and that the value of the dollar is known, the instrumentality and expectancy perceptions for this program facet should clearly contribute some positive force to the overall consideration, relative to the decision of not participating and continuing to receive lower pay.

As another example, the DCCCRP claims that volunteerism will lead to career enhancement. But as Vroom had noted, “an outcome with high positive or negative valence will have no effect on the generation of a force unless there is some expectancy (that is, subjective probability greater than zero) that the outcome will be attained by some act” (p22). In this case, those career benefits are claimed but not guaranteed. Without communicating firm assurances which force the expectancy of career enhancement to near certainty (for satisfactory performers), the prospective DCCC participant is left to estimate the expectancy on their own, and likely at a much lower rate than the DCCC desires.

The DCCCRP is silent upon the quality of life issues facing deployed members, which fall into the extrinsic Hygiene factor groups of Physiological, Safety, and Love. As such, this area deals with prepotent forces which are easily capable of upending the forces applied by higher-group Motivators (such as additional salary). The DCCCRP provides no promises that the in-theater environment will approach or meet hygienic levels of living standards, working conditions, availability of personal communications, work hour maximums, nor physical safety. In the absence of such information, the DCCCRP misses an opportunity to influence prospective members, and leaves them with the burden of identifying and analyzing the negative elements of participation. The DCCCRP could attempt to control the subfactors’ forces with preemptive discussion.

B. DCCC AREAS OF OPPORTUNITY

The recognized need for the DCCCRP to attempt to control the subfactors’ forces through the use of preemptive discussion leads to the development of additional DCCCRP aspects based upon the under-influenced areas indicated in Figure 6 (DCCC-subfactor overlay). The following discussion demonstrates the manner in which these areas can be addressed by the DCCCRP, organized by factor group. Though each item may appear minor on its own, the preceding motivational models have predicted that the decision to participate in the DCCC is a function of many such items’ forces. Thus, the DCCCRP should not dismiss these opportunities hastily. Figure 7 below summarizes the desired end state of factor group forces after many of the following opportunities for DCCCRP enhancement are addressed.

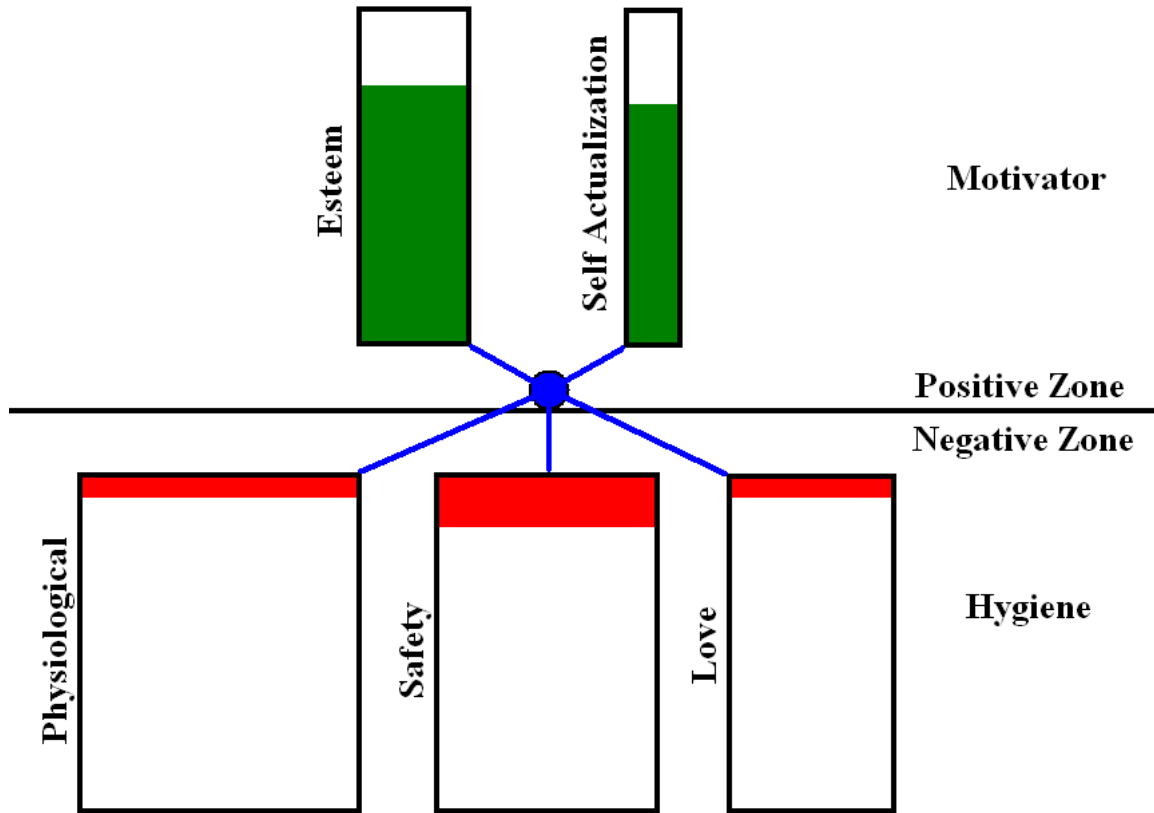


Figure 7. Composite Motivational Model with subfactors converted to forces

1. Physiological Factor

In regard to the prepotent needs for basic food and drink, prospective applicants can reasonably expect that sufficient resources will be made available to DCCC participants as necessary to sustain life, as the Army commonly manages such basic logistics for deployed forces. However, the DCCC could discuss the type of food/drink available in theater, seeking to enhance the apparent quality and variety thereof in order to control the valence and expectancy of this potentially dissatisfying subfactor. For instance, if franchised food providers, whose product tends to be consistent and of known quality, are present in theater then making their availability known may be of value. Additionally, the DCCCRP could comment upon the availability of local fare. If local foods are available to try, a potential dissatisfier could become a motivator when more adventurous epicureans consider this to be a potential benefit.

The DCCCRP's available information does mention that volunteers should expect to work long hours and be able to withstand fatigue. However, greater detail in regard to what extent and how often members will deal with being overworked, as codified by maximum workdays and guaranteed personal time, may go far to manage expectancies and valences in this subfactor. Granted, given the circumstances which made the contingency contracting operation necessary, it may be difficult to gauge and guarantee such variables. However, any systemic attempt (policy) to control DCCC member fatigue levels may be a critical component of Hygienic force mitigation which ultimately leads to a favorable participation decision.

The DCCCRP also provides a dearth of information in regard to the basic work conditions and standards of living that volunteers can expect to endure. The Army is fully aware of the living quarters being provided, the sanitation conditions, the level of protection from environmental irritants, and so forth. By describing the basic elements of the DCCC environment in clear, binding terms, the Army maximizes another opportunity to manipulate the force being applied to the prospect's decision point.

2. Safety Factor

As with the earlier fatigue subfactor, the nature of contingency contracting operations would likely make it very difficult for the Army to guarantee physical safety for DCCC members. Though DCCC members will have to accept a certain amount of risk when choosing to participate, the DCCCRP should attempt to identify the extent of that risk, and also describe some of the mitigators available. For instance, the availability of body armor and firearms should be commented upon by the program. If the Army cannot provide such equipment, it should at a minimum expressly identify what items are unauthorized, and provide assistance for the acquisition/transport of authorized safety equipment. While this approach on the one hand serves to inform prospects, it also draws the Army's attention to its own policies, and may accelerate revisitation thereof if the Army finds that its valuation of DCCC member safety is incongruent with the expectations of prospective members.

3. Love Factor

Under the Love factor group reside numerous subfactors, which are not addressed effectively by the DCCCRP. While some of the workplace subfactors, such as community, belonging, and supervision are again difficult for the DCCCRP to discuss in specific fashion, Love subfactors such as personal relationships and affection are at essence an issue of communications availability. The DCCCRP should set forth binding minimums of personal communications in terms of both accessibility and method. The DCCCRP can clarify the availability of long-distance telephone and internet access on a weekly-average basis, and confirm to what extent resources are sufficient to allow each member adequate use thereof (including personal time itself).

In order to break up the monotony of the deprivations of contingency deployment, and to better mitigate the negative valences in regard to the Love factor group, an additional guarantee which the DCCCRP could consider providing is that of a paid trip home (transportation and salary) at the midpoint of DCCC deployment. The assurance that the duration of the deployment to the contingency theater will be split by an opportunity to meet with family and friends may be of critical value to the prospective DCCC members for whom the hygiene levels of the Love subfactor are set high (and will likely temporarily assuage many of the Physiological subfactors suffering concurrent deprivation).

Incidentally, the aspect of deployment is another opportunity for the Army to upend a potential dissatisfier and create a satisfier from it. If the DCCCRP were to offer an alternative to the trip home by allowing the member to instead select a trip elsewhere on the same continent (or a reasonably close alternative), DCCC participation could present a motivating opportunity for members to experience a personally-desirable trip which they might otherwise not undertake (possibly a unique strength of DCCC participation over non-participation). This option can also be timed by a member such that their family members can independently meet them in the locale, affording much of the same (if not greater) benefits of a trip home.

4. Esteem Factor

The DCCCRP referenced the career-building effects of participation. However, as noted earlier, the DCCCRP's reference to the value of the experience is not supported by any concrete policy support. In order to enhance the effectiveness of DCCC participation in furthering an Army contracting professional's career, the Army could create a preference category for personnel who have participated in the DCCC. Functioning in a manner similar to veteran's hiring preference, an official DCCC preference program provides 100% expectancy to the force equation, and the valence thereof is limited only by how far the Army is willing to go to reward personnel who take the risks which accompany national service in this manner. A DCCC preference could be expected to therefore positively influence such Esteem subfactors as achievement, respect, recognition, (future) salary, and advancement.

Another way to enhance DCCC attractiveness from the perspective of the status and recognition subfactors would be to issue a DCCC-specific award. A Direct Support Ribbon (or Medal) could be produced which would be available only to civilians who voluntarily enter the contingency theater in support of prolonged operations. Though the valence of this benefit is highly variable, to some prospective members this item may provide an appreciable force in favor of DCCC participation. As the Army already has processes in place for developing and acquiring service ribbons/medals and the accompanying certificates, a Direct Support Ribbon or Medal presents what appears to be a relatively cost-efficient method to influence Esteem subfactors.

5. Self Actualization Factor

Of all factor groups to be influenced, the Self-Actualization factor group presents perhaps the most difficult challenge in that the specific subfactors active therein are difficult to define and likely to vary extremely widely amongst various personnel. The remaining interests of one individual, who is satisfactorily fulfilled in all other prepotent factor groups, may be entirely and unpredictably different from the next individual experiencing similar satisfactions. However, U.S. citizens do have certain shared ideals

and myths, as fostered by the national culture which may be of use in orienting any DCCCRP efforts to provide motivation within this area.

The previous chapter of this research project referred to the mythopoetic generation of an ideal for which people should strive. The value in this is that the DCCCRP has the advantage of primacy in setting the definition of the ideal and its worth. In the U.S. culture, the Patriot, as initially represented by the nation's founding fathers and later by numerous civic and military notables, may hold appeal to some prospective DCCC members who could be led to believe that DCCC participation is the behavior of a Patriot. Additionally, U.S. culture often places a value upon travel-induced experiences, successfully enough to support a multi-billion dollar annual industry. Thus the DCCCRP could accentuate foreign experiences as a positive element of a rounded individual. To these ends, the Army can develop DCCCRP advertising, narrowly broadcast to the pool of prospective members for maximum efficiency, which leverages decades of existing enlistment recruiting program experience in order to develop these ideals/myths and associate them with the DCCC.

6. DCCC Stratification

Some of the subfactors discussed in the above paragraphs may vary greatly from one theater to the next, causing broad claims or commitments as to their expectancies and valences to be impractical or misleading. To acknowledge these differences while still seeking to influence applicant perceptions, the DCCC theaters could be stratified in order to create levels of DCCC membership which correlate to the level of deprivation associated with particular contingency locations. Active contingency locations can be individually assessed in terms of the Hygiene factors discussed throughout this project, then grouped based upon similarities in degree of deprivation. Relatively safe, stable contingency theaters with established facilities providing minimal disruption to subfactors within the Physiological, Safety, and Love, would be rated as DCCC Level 1, perhaps with transitional contingency locations being rated DCCC Level 2, and the most dangerous and challenging environments being rated DCCC Level 3.

An immediate benefit of this stratification of the DCCC is that those prospective participants for whom the risk of what would be considered DCCC Level 2 or 3 is too

high, may still make themselves available to participate in DCCC Level 1. Under the current all-encompassing DCCC, such a person would have to consider the likelihood of DCCC volunteerism resulting in the worst-case scenario, and may choose to err in favor of risk avoidance. Further, those personnel willing to participate in DCCC Level 2 or 3 environments are now clearly identified to the Army leadership, who can then deploy them to more extreme locales rather than squander their hardiness in a Level 1 location.

Additionally, once members become part of the DCCC at the more cautious Level 1, the Army now has a pool of prospective Level 2 and Level 3 participants. Level 1 members present the DCCCRP with relatively higher potential to upgrade their participation versus non-DCCC participants, as they have already shown a willingness to deal with many of the key dissatisfiers associated with more extreme deployments. This target audience will allow the Army to develop a more efficient and effective method of attracting volunteers to fill the Level 2 and 3 requirements.

With stratification of the DCCC comes the ability to offer greater levels of compensation, better tuned to the contingency contracting environments' challenges. While DCCC Level 3 represents the greatest array of potential detriments to Hygienic forces possible, the number of DCCC Level 3 members required will also represent a smaller portion of the overall requirement and associated labor expense. If the Army finds that major increases to the DCCC Level 3 benefits package is required, these expenses need not be applied to Level 1 or Level 2 member benefits, thereby minimizing the program's overall budgetary strain.

C. THE "VCCC" CONCEPT

Another approach to eliminating the challenges of in-theater dissatisfiers could be to eliminate the theater itself. The Virtual Contingency Contracting Cadre (VCCC) concept is specifically conceptualized by the researcher with the aim of bolstering the effective manpower of the DCCC by eliminating (for VCCC members) those DCCC dissatisfiers which are too expensive or difficult to address effectively within the deployed environment. The VCCC concept leverages the Army's existing technological investments, effectively delivering the work capabilities of numerous personnel without the requirements of a physical presence nor the related logistical concerns.

1. VCCC Function

Under this concept, a workspace on a stateside installation is set aside from normal contracting activities, and its equipment and volunteers are “attached” to a deployed contracting organization. The volunteers of the VCCC then report to and support teams of deployed contracting personnel via secure file sharing and video teleconferences. The Contracting Officers (KOs) in theater retain the duty to sign the procurement instruments, thereby clearly preserving any procedural and regulatory relaxations allowed for contracting procedures occurring in-theater. Staffing VCCC teams with their own contracting officers as counterparts to the deployed KOs provides VCCC members with real-time access to experienced instruction while also avoiding any need for a deployed KO to manage junior personnel from afar.

The components of the contracting process which are irrelevant to location are passed from the DCCC workforce to the VCCC workforce in CONUS. For example, review of requirements documents, acquisition policies, cost and pricing issues, contract generation, etc, can each be undertaken by nondeployed professionals in support of the deployed professionals. Contract issues involving U.S. firms could use VCCC members to meet with the stateside contractor management personnel rather than DCCC members attempting to battle distance and time zone complications. In fact, time zone differentials between the VCCC and DCCC become a strategic advantage as the contracting process could progress even while the deployed members are asleep.

Another particular benefit of a non-deployed cadre is that physical and medical issues which must be controlled for in the DCCC recruitment program do not apply to the VCCC members. For instance, the DCCC program literature specifically states that the Army cannot guarantee the preservation and availability of temperature-controlled medications, forcing the DCCC to rule out such applicants. Other medical concerns, such as an ability to weather extreme conditions or endure the physical strains and fatigue described in the DCCC health paperwork also evaporate under the VCCC. Such relaxations upon the physical standards for contingency contracting professionals thus results in an expansion of the pool from which contingency support can be drawn.

The end result of the VCCC is expected to be a reduced requirement for in-theater contracting personnel. With fewer personnel necessary, it should be possible to lessen the utilization and burnout rates of those valuable contracting professionals who are actually able and willing to deploy. This benefit also magnifies the DCCC program's recruitment and retention effort, as each deployable cadre member added would thus represent a greater proportion of personnel requirements filled.

Instead of undertaking an extended OCONUS deployment, a member of the VCCC merely reports to a different location within their duty station. Because the VCCC volunteer would not be required to relocate, this eliminates numerous negative forces upon the Hygiene factors in play. For instance, the same sources of food, entertainment, and emotional support are as available as they are when not participating in the VCCC. The participant's assessment of personal safety should also be no different than in their current life. The participant can still meet with previous coworkers during lunch breaks or non-work hours, so prior working relationships are not difficult to maintain. In effect, there should be no appreciable difference in the forces exerted by the hygienic factor groups (Physiological, Safety, and Love) between the choice of participation and non-participation.

Given the virtual negation of the dissatisfiers, the VCCC program should need far less investment in the Motivator subfactors in order to achieve the desired interest levels. Herzberg had noted that "the fewer the opportunities for the "motivators" to appear, the greater must be the hygiene offered in order to make the work tolerable" (p115). In this case, the reverse is true. By providing just a few efficient satisfiers into the program, with virtually no hygiene to be countered, the decision point for VCCC should move as depicted below (Figure 8):

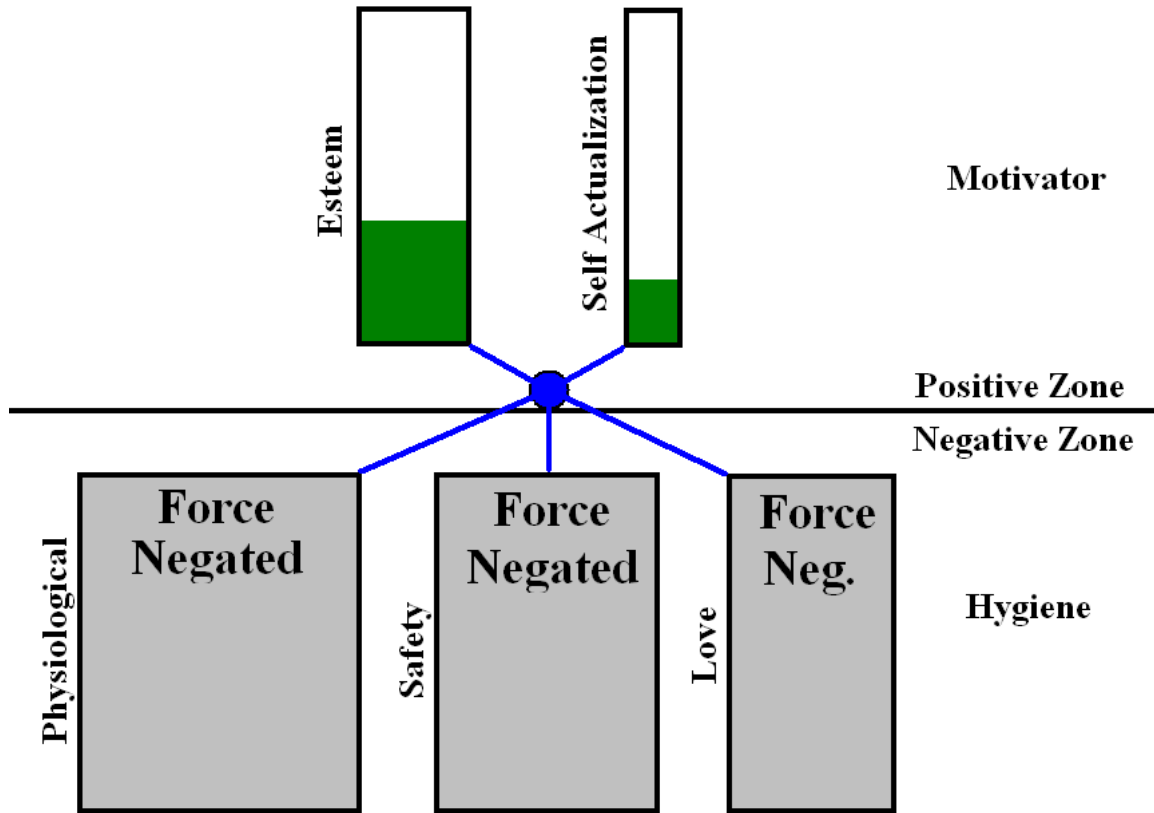


Figure 8. Composite Motivational Model- expected VCCC forces

In determining the specific satisfiers which the VCCC should thus offer in attracting volunteers, the recruitment program must take care to avoid inducing Hygiene creep. If the VCCC were to start offering satisfiers akin to those which the DCCCRP offers, the DCCC could expect to suffer in interest as the VCCC's benefits become the new Hygienic state (versus the current Hygienic state of working in non-deployed positions). To that end, it appears inadvisable to offer the same type of satisfiers mentioned earlier, such as additional salary, service ribbons, or hiring preference points.

Instead, the VCCC recruitment strategy should focus upon the intrinsic elements of motivation, particularly those which are nearly unavoidable (thus achieving maximum expectancy with minimum investment). Some obvious areas for this are experience (Esteem subfactors of achievement/reputation/superiority), work variety (Self Actualization: work itself) and contribution to the war effort (Esteem: responsibility; Self Actualization: ideals).

The VCCC recruitment literature should discuss how participation provides a significant portion of the well-rounded 1102 experience which is valued by hiring/promotion processes. A VCCC member is performing contingency-style contracting, using contingency practices to meet contingency needs. The experience also subjects members to the same operational tempo being experienced by DCCC members, so the exercise in the criticality of efficiency would benefit VCCC members as well. These activities are by nature different from an 1102's current workload, and this variety in the daily experience may be enough of a force alone to convince a significant number of professionals to volunteer.

Clearly, participation in the VCCC allows a member to claim direct assistance to the Army's war efforts. For some, this can also be a strong motivational force, especially for late-career professionals who'd like to have a "success story" to cap off their last few years in government service. Because the VCCC is envisioned as helping to reduce the need for DCCC members, it wouldn't be unreasonable to also use the approach of pointing out to prospective VCCC members that their "participation here can keep others from having to go there." Those who recognize that they feel the danger in deploying with the DCCC is too great for themselves, may appreciate the value in limiting the deployment risk to others as well (as explicitly pointed out by the VCCC literature). A certificate of appreciation for participating in the VCCC, which would be fairly standard practice for any special undertaking on the Army's behalf, would cap off the benefits of VCCC through meeting the "recognition" subfactor under "Esteem."

2. VCCC Limitations

The VCCC concept is envisioned to function in a supporting role to deployed contingency contracting personnel, rather than as a total replacement. The extent to which VCCC would be expected to be effective will vary based upon the Contingency Contracting Phase which the operations are currently functioning within. For use of the VCCC, the first two phases are expected to be less viable than the last two based upon relative operational maturity, as described below.

During the Mobilization/ Initial Deployment Phase (I) of Contingency Contracting, in-theater resources are focused upon the provision of basic supplies and

services which operations will require in order to function. Given that operational fundamentals such as electricity, fuel, shelters, and security are not yet met, the ability for deployed contracting forces to establish secure video and electronic communications will be severely limited. Additionally, were a VCCC connection somehow established during this phase, its members would be hard-pressed to support the procurement of such localized ad-hoc needs, many of which will not be procured using contractual instruments of particularly high value nor long duration. Thus it would be expected that this first phase of contingency contracting would not present an efficient time during which to attempt VCCC operations. As operations enter the Build-Up/ Stabilization Phase (II), operational resources begin to become more dependable and accessible. VCCC operations may also be limited in effectiveness during this phase, dependent upon the in-theater personnel's success in acquiring stable operational resources and normalizing the contracting process as well as upon the stability of the region's economy and infrastructure. However, to the extent that major contracts are being awarded to organizations external to the operational theater, VCCC can begin to provide support to the deployed personnel.

The Sustainment Phase (III) and Termination/Redeployment Phase (IV) offer the greatest opportunity for VCCC effectiveness, as these phases represent the more mature contingency contracting environment. These two phases should provide the basic operational stability necessary for the regular coordination between the VCCC members and their counterparts in theater over secure technological connections. Meanwhile, contracting instruments and practices are at their most normalized- competitive solicitations will have become much more common, the vendor base will have expanded, and larger, more sustained contracts will also become more common. With these elements, the contracting process is allowed more opportunity to function as it does in normal operations, becoming more distributable between the VCCC-DCCC teams as described in the VCCC Function segment above.

However, regardless of the contingency contracting phase in which the DCCC members are functioning, their VCCC support personnel will never represent "boots on the ground." By nature of distance, VCCC members will not be able to participate in site

visits, material inspections, nor relationship-building activities with the local population, to name a few what may be numerous limitations. Additionally, in order to achieve the full synergy possible in a DCCC-VCCC team, both sides will have to commit themselves to optimal division of labor, precise communication, and mutual understanding.

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V. CONCLUSION

The preceding chapters support traditional findings that the decision-making process is complex and highly variant at the individual level. The Deployable Civilian Contracting Cadre Recruitment Program (DCCCRP) does not address many of the issues (subfactors), which prospective members may be considering as they decide whether to volunteer. As indicated by the researcher's composite model, which had been developed based upon the motivational models of Vroom, Herzberg, and Maslow, any decision is a net effect of a weighted assessment of the values for all of the outcomes which appear likely for a given action. For each subfactor which the DCCCRP fails to influence, an opportunity to positively affect the overall assessment is lost. As such, any recruitment program, and the DCCCRP in particular, can benefit from early consideration of the forces affecting the decision-making process. The point is that programs need to have, at their core, a primary focus upon intrinsic motivators, and an elimination of as many hygiene factors as possible.

As Herzberg had so well noted, "the fewer the opportunities for the "motivators" to appear, the greater must be the hygiene offered in order to make the work tolerable." When a program is designed under the preconceptions that financial reward is the primary manageable factor, and that the situation's operant Hygienic forces can be overcome primarily with brute financial outlay, that program had better be extremely well-funded. As regards additional salary for participation, the FAI indicated that the Army's 1102s are already well-remunerated relative to the average U.S. citizen, thereby increasing the risk that each additional dollar of pay for DCCC participation may produce diminishing returns in terms of motivation. In sum, salary as the main motivation tool may be quite limited in normal economic times, and more useful during societal financial stress.

The preceding also discussed how the Army has numerous non-salary based opportunities to influence the decision of contracting professionals to support the contingency contracting mission. These range from seeking to control and eliminate negative forces (Hygiene) to seeking to increase and confirm positive forces

(Motivators). With several of the identified opportunities for improvement being generally non-monetary in basis, the cost-benefit outcomes for addressing many of the identified factors may exceed the cost-benefit outcome of additional pay. These are possibilities which a nation at war cannot afford to pass over uninspected.

The research also sought to identify methods by which the pool of Army professionals could be broadened. As noted, by stratifying the levels of DCCC participation in correlation to operational risk levels, the previously unresponsive recruitment target may find that with the higher risk situations removed from the decision equation, DCCC participation is a greater possibility. Beyond this, the researcher also envisioned the possibility of an “outside the box” method of increasing contingency contracting support by leveraging existing technologies to create a Virtual Contingency Contracting Cadre. As this Virtual Contingency Contracting Cadre (VCCC) serves to reduce the burden upon deployed personnel, those ranks of the deployed may become effectively multiplied as they are freed to perform additional “boots on the ground” work normally requiring additional manpower.

The Gansler Report has clarified that the U.S. Army faces numerous challenges in the present and near future in terms of maintaining the sufficient staffing of qualified professionals throughout contracting. As historically high contractual obligations per capita continue to strain the contracting profession at large, in-theater contingency contracting has been particularly disadvantaged in sourcing and retaining sufficient personnel for their own needs. Turning this challenge into an opportunity for systemic improvement in the use of modern motivational understanding could ensure that solutions developed for the Army’s current problems become standard practice for the future.

VI. RECOMMENDATIONS

The preceding effort has led the researcher to believe that there are several actions available presenting an opportunity to enhance the Army's response to current civilian contingency contracting shortfalls. These recommendations are believed to be most effective when complemented by each other, though enactment of any may provide positive value to the contingency contracting mission. The five recommendations are as follows:

1) The Army should conduct an official examination of the contingency contracting subfactors to facilitate a more comprehensive recruitment program.

The DCCCRP could benefit from an activity such as was performed in this research project, mapping the issues involved with volunteering for the DCCC, with attention given to supported motivational models. The weightings suggested by Maslow, the Motivator-Hygiene difference pointed out by Herzberg, provide useful guidelines on how to motivate candidates for Army contingency contracting.

2) The Army should conduct a survey across its contracting organizations to enhance understanding of the target pool, thereby facilitating a more precise DCCCRP structure which is tailored to the perspectives of those professionals.

The Army should conduct a broad survey of contracting professionals designed around identified factor areas. The objective is to gauge the relative importance subfactors may have in participants decision to deploy in the DCCC. Survey results can be analyzed to identify and rank-order particular subfactors of high importance to most civilian contracting professionals. Given the demographic information provided within the FAI report, the survey should take care to capture the differing perspectives provided by gender, age, and career progress, particularly as the nation struggles with financial recession. Survey results can be used to support actions to enhance civilian participation, and to assist in attuning the DCCCRP for demographic categories of interest.

It may be illuminating to inquire from future respondents who indicate zero interest in DCCC participation whether they would reconsider for substantially larger payments upon deployment completion. Though likely unsupportable from a budgetary standpoint, the proportion of affirmative responses may provide further clarification concerning the efficacy of money as a primary motivator.

3) The Army should attempt to improve the DCCC operational environment and recruitment program, as feasible, in order to exert maximum control over the satisfying and dissatisfying forces which affect DCCC participation.

Those DCCCRP subfactor enhancements described in the Activities chapter (award of a Direct Support Ribbon, guaranteed midpoint travel, etc.) present an ideal starting point for such a process. Each of the enhancements has its own benefits and financial ramifications to be considered, with some being inherently more cost-effective than others. The Army's subfactor cost-benefit analyses of the enhancements may be more accurate if the two previous recommendations have been undertaken, thereby feeding data into this effort. It remains then a task of identifying and eliminating the most "expensive" Hygienic forces to bring the pay target to a manageable yet still widely attractive sum.

4) The Army should stratify the DCCC to provide prospective members with a choice of risk levels and associated pay.

The DCCC theaters should be classified in order to create levels of DCCC membership which correlate to the level of deprivation associated with particular contingency locations. This will allow risk-averse 1102s an opportunity to participate in less threatening deployed locations, while those personnel willing to deploy to harsher environments can be utilized more effectively. With stratification of the DCCC, the Army should capitalize on its ability to offer greater levels of compensation, better tuned to the contingency contracting environments' challenges. Focusing the highest rewards upon the highest risk will allow the Army to minimize the DCCC's overall budgetary strain.

5) The Army should test the Virtual Contingency Contracting Cadre concept.

Finally, the VCCC concept requires further feasibility analysis. Create a pilot VCCC program to test 1102 responsiveness to this alternative approach for fielding contingency contracting manpower. A detailed VCCC program will require expertise from several fields, e.g., contracting, logistics and information technology. There are numerous instances of successful VTC use throughout the DOD, with the Naval Postgraduate School being a strong example of reliable recurring VTC sessions, and numerous other organizations utilizing secure VTC technology frequently. If such a concept can be brought to cost-effective fruition in this case, the Army may find that it has developed yet another relative advantage in the ongoing race for battlefield supremacy.

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